

### **In the Abstract**

***Kindly enter the following into the Official File:***

A method of estimating precipitation characteristics including acquiring a radar image including at least a vertical plane of a precipitation zone; processing a vertical profile to generate digital signals representative of reflectivity in vertical direction  $z$ ; integrating the signals representative of reflectivity by assimilation of a reflectivity vertical profile in an aggregation model to generate a signal representative of the profile in the vertical plane of a mean particle diameter weighted by mass of each particle; and determining concentration of the solid particles on the basis of signals previously determined.